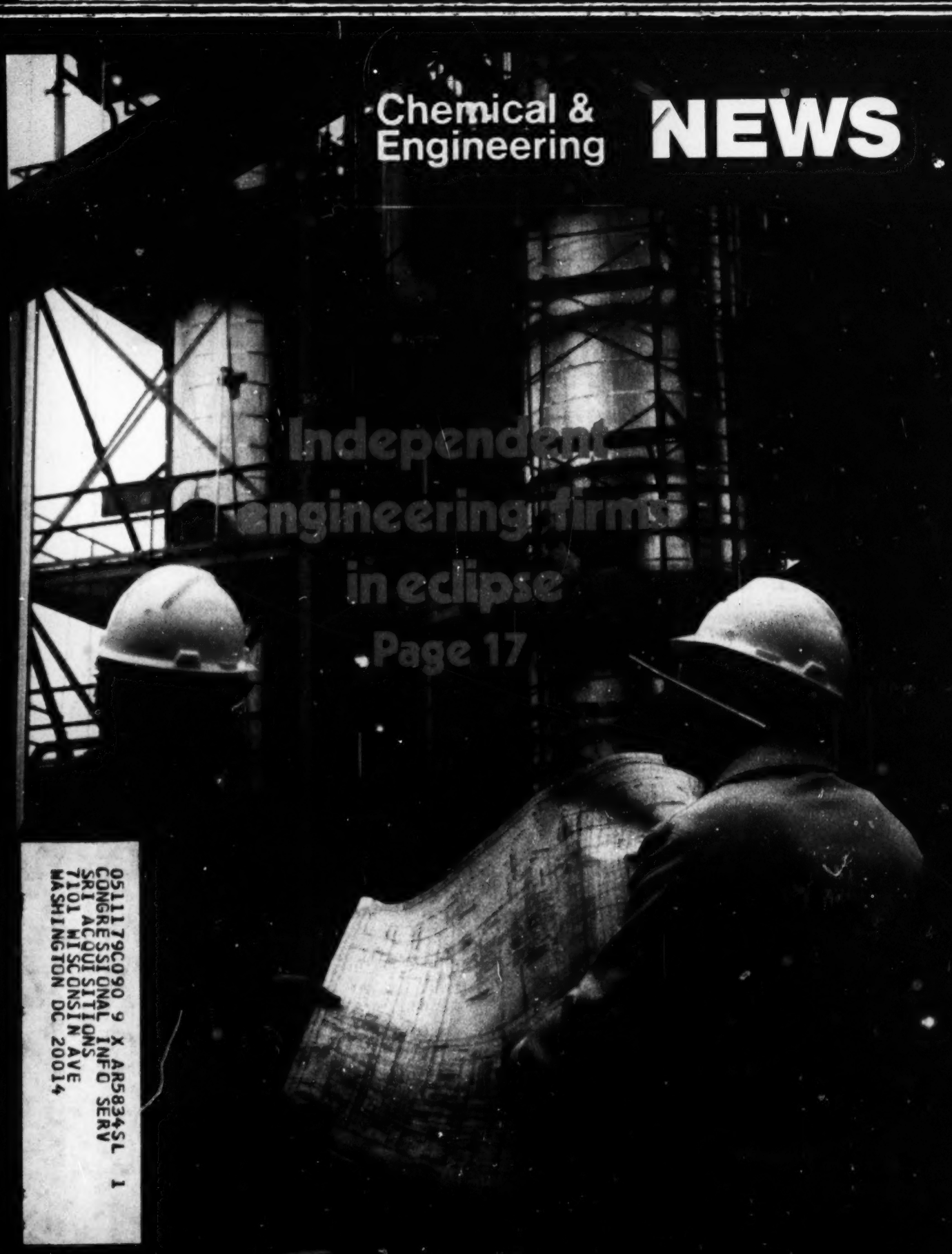
Chemical & Engineering NEWS



Independent engineering firms in eclipse

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Engineering firms in midst of slow 1980

Blame laid to downturn in foreign business and cuts in capital spending by chemical industry; synfuels projects hold key to future growth

Engineering-construction firms, like many U.S. industries, this summer are in the doldrums. However, these firms have been resting there for some time now in terms of projects, if not in overall profits.

There is much to blame—a turndown in overseas business, lack of new projects in the chemical process industries, and restraint on the part of chemical companies to commit funds to new capital projects.

Combined sales for three of the top engineering companies—Fluor, Foster Wheeler, and Combustion Engineering—increased 20% to $2.3 billion in the second quarter from the same period last year. This figure, however, includes equipment sales and other nonengineering businesses.

At the same time, combined profits for the three companies increased 35% to $78 million. From the second quarter of 1978 to the second quarter of 1980, they increased 27%.

However, these profit figures are heavily influenced by nonchemical plant projects, such as Fluor's vast oil-field work in Saudi Arabia. The real state of chemical engineering and construction is reflected only in informal comment from company officials. One of the few official hints of softening came in a warning from Halliburton in May that its engineering-construction business, which includes the important chemical plant business of Brown & Root, probably would show lower profits in 1980 than in 1979.

Combustion Engineering in its second-quarter report states: "During the first half of 1980, operating results from design, engineering, and construction services for chemical and petrochemical processing plants declined from the same period in the prior year due to delays in booking new orders and weak market conditions during 1979."

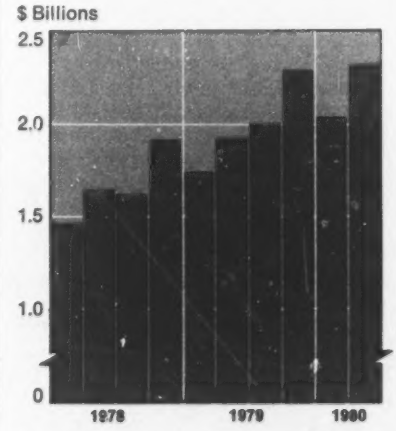
Engineering companies would have been much worse off had it not been for refinery projects. A spokesman for one company says that much of the business in the past two years has been upgrading oil refineries to handle heavier crude oils, get higher quality product out of each barrel of crude, or save energy.

However, even in the oil industry, as in chemicals, engineering firms say that most of their work lately has been upgrading existing facilities. There is no great need right now for an increase in refining capacity.

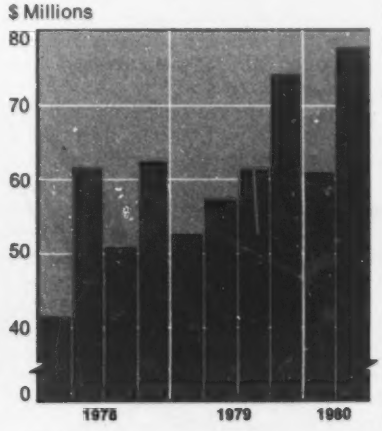
Also working against the engineering companies has been the trend for chemical companies to do at least part, if not all, of their own engineering on new projects.

The rest of 1980 doesn't look very good for engineering-construction companies. Du Pont in its quarterly economic forecast says that real

Sales at engineering firms have increased...



...but earnings gains have been less consistent



Note: Based on results for Combustion Engineering, Fluor, and Foster Wheeler.

Engineering firms' clients could spend more

It's not that engineering companies' big clients in the U.S. chemical industry couldn't let out more contracts. They easily could and they have set aside considerably increased funds for potential projects. But to date, spending rates have trailed appropriation rates, and unspent funds are rising.

Raw capital spending figures in chemicals and allied products in the U.S. are certainly up, according to surveys by C&EN and a number of other sources. One of these, the Conference Board, a business research group in New York City, measures not only current-dollar spending but constant-dollar spending and similar levels of capital appropriations and backlogs.

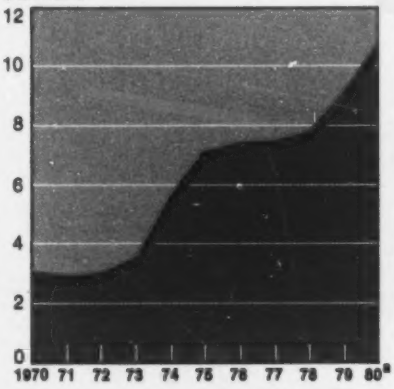
The Conference Board finds a 19% spending increase for the chemical industry in 1979 over 1978, followed by a 26% spending jump in first-quarter 1980 over first-quarter 1979. However, with inflation taken out, these figures fall to 9% and 18%, respectively. And the industry's backlog of unspent appropriations was up 21% in first-quarter 1980 (11% in constant dollars) from first-quarter 1979 after stagnating for the previous four years.

Historically, the rise in backlogs can mean two things—a temporary glut of unspent funds in a capital spending boom (as in 1973 and 1974) or a pileup of money due to project restraint in times of excess plant capacity (as in 1969 and 1970). By all indications, the latter case applies now. Capital spending as a percentage of chemical company sales is at a low ebb at present, and the current recession has brought plenty of excess plant capacity.

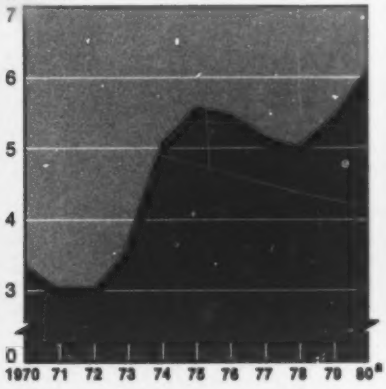
As a result, the ratio of constant-dollar spending to appropriations in the chemical industry has been sinking over the past year. After a near balance from 1975 through 1978, this ratio fell to 0.86 in 1979 and slipped further to 0.79 in first-quarter 1980.

The overhang of unspent funds eventually could become a windfall of new contracts for engineering companies, but there are no signs of anything like this now.

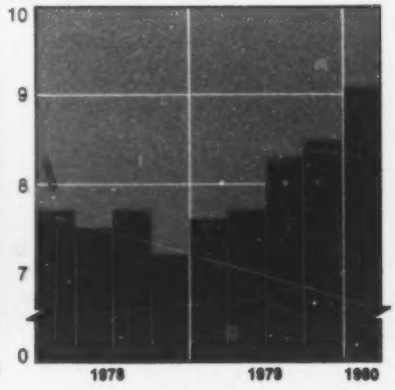
Chemical capital spending has been rising lately...



...but only modestly with inflation taken out...



...and backlogs of unspent appropriations are swelling



a Annualized rate in first quarter. b 1972 dollars. Source: Conference Board

business fixed investment in the U.S. will be down 2.5% in 1980 and down another 4.5% in 1981. Backlogs at the engineering companies are up only slightly if at all from last year. In constant-dollar terms, they are off considerably. (Backlogs represent future business for the engineering companies and are somewhat like inventoried demand.)

However, engineering companies say that although things don't look good right now, their profit picture could turn around quickly. In fact, one engineering company spokesman went so far as to say that he believes the recession for engineering-construction firms has bottomed out.

Although new orders are not flooding in at engineering companies, they all say that there is "increased activity." That means more inquiries, which company sources believe will turn into new orders.

All engineering firms agree that currently there is generally a high level of hiring of engineers as companies gear up for future business. However, since the level of actual engineering activity is rather low right now, there is some hiring of engineers who will not be kept very busy until the new business materializes.

Foreign business is picking up, according to the companies. It was slack for a while, but now there is heightened interest, especially in the Middle East, where oil producers want to put chemical plants close to their refineries so that they can get added value for their crude oil. U.S. firms, however, will not get all of this business. They are facing stiff competition from Japanese and West German engineering companies.

However, the synfuels program is the gleam in the eye of the engineering-construction firms. Many of the inquiries that they are receiving currently are about synfuels projects. And they blame the potential of the synfuels program for the present tightness in the engineering employment situation.

Just as the federally mandated environmental programs of the early 1970's used vast numbers of engineers, so the federally backed synfuels program is expected to soak up much of the available talent and still need more. Estimates are that it will take anywhere from 15,000 to 18,000 chemical engineers for the synfuels program alone once it gets started. So in many ways, in spite of complaints about the government, Washington is just about the best friend that the engineering companies have.

Even so, for the balance of 1980 and at least part of 1981, engineering-construction firms are looking for more difficult times. Farther off, the consensus in the industry is bright hopes. Middle East countries will want to get increased value for their oil, and the U.S. will wish to counter the high price of foreign oil with its own synthetic fuels program. □